UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HAZARDOUS WASTE ENFORCEMENT BRANCH
1445 Ross Avenue
Dallas, Texas 75202

April 2, 2010

MEMORANDUM

SUBJECT: Gulfco Marine Maintenance Superfund Site
Condition of Storage Tanks and Former Impoundment Cap

FROM: M. Gary Miller, P.E.
Arkansas/Texas Section (6SF-RA)

TO: Carlos Sanchez, Chief
Arkansas/Texas Section (6SF-RA)

On March 9, 2010, I performed an inspection of the above ground storage tanks and the cap over the former impoundments located at the Gulfco Marine Maintenance Superfund Site at 906 Marlin Avenue in Freeport, Brazoria County, Texas. Pictures of the tanks and cap are attached.

An above ground storage tank farm is located at the site south of Marlin Avenue. It consists of fourteen tanks of various sizes located within a concrete bermed area. These tanks contain various hazardous substances including benzene, 1,2-dichloroethane, chloroform, heptachlor, tetrachloroethene, trichloroethene, and vinyl chloride. Corrosion was observed on the tanks which resulted in complete penetration of the metal in some cases. The containment areas were approximately one-half full with water. Since 2003, there has been additional deterioration and corrosion of the tanks, in some cases by a significant amount. This corrosion will continue as a result of the site's location near the coast, and will likely result in future releases as the tanks continue to deteriorate.

Wash waters from the cleaning of barges that contained organic chemicals, caustics, and waste oils were stored in the former surface impoundments. These impoundments where earthen pits with natural clay liners located at the site north of Marlin Avenue. They were closed in 1982 by removing the liquids and sludges except for about 100 cubic yards of sludge, which was mixed with soil and left in place. The impoundments were capped with approximately three-feet of clay and a hard-wearing (shell) surface. The shallow ground water below the former impoundments occurs at depths ranging from 5-feet to 15-feet. This shallow ground water contains a number of volatile organic compounds, including 1,1,1-trichloroethane, 1,1-dichloroethene, 1,2,3-trichloropropane, 1,2-dichloroethane, benzene, 1,2-dichloroethene,

methylene chloride, tetrachloroethene, trichloroethene, and vinyl chloride.

The purpose of the clay cap is to prevent direct exposure to the underlying hazardous substances, and to restrict infiltration of rain water and migration of the hazardous substances in the shallow groundwater. The cap was observed to have ruts on the top, and was covered in some areas by woody shrubs reaching a height of approximately three to four feet. These ruts may erode to the point of exposure of the contaminated materials below the cap. In addition, the ruts and the roots from the woody shrubs will likely result in increased infiltration through the cap, and migration of the hazardous substances beneath the cap into shallow ground water, the surrounding soils, and surface waters.

If you have any questions regarding this, please contact me at 5-8318.

Attachments

cc: Barbara Nann
Rita Engblom